Pratt & Whitney
Review Meeting
East Hartford
May 29, 1998

Attendees

Juan Perez	EPA
Ernie Waterman	EPA
Aaron Gilbert	EPA
Jeff Klapheke	LEA
Tom Salimero	LEA
Vanessa Riva	Pratt & Whitney
Lauren Levine	Pratt & Whitney
Phil Sheridan	Pratt & Whitney
Kyle Smith	Pratt & Whitney
Steve Druschel	TechLaw
Tom Penhale	TechLaw

1) Pratt & Whitney (P&W) discussed the schedule for the meeting presentations yet to come, and circulated a proposed schedule. Key elements of this schedule are a change to two meetings every three weeks and an extension to July 16, 1998 for completion of all presentations. The reason for the change is the backlog of units yet to be considered. Pratt & Whitney suggested that the review process could be sped up if EPA thoroughly reviewed submitted documents before each meeting. EPA stated that while review of documents prior to meetings is helpful, much understanding is gained from the presentations. EPA added that the presentations are critical for speedy review of the work and the findings in each technical memorandum (TM) or unit specific technical memorandum (USTM).

EPA agreed to continued efforts to review submitted documents prior to meetings, but cautioned Pratt & Whitney that documents needed to be submitted on the schedule promised in order to be reviewed within the times allotted by each reviewer. Pratt & Whitney stated that the presentation and review process started with the cleaner units and is progressing to the units which require more investigation and remediation efforts. EPA emphasized that Pratt & Whitney must strengthen the presentation process if the newly proposed review schedule is to be met, as the current level of presentation may not be sufficient to provide the speed of understanding necessary for the accelerated review, especially with more complex USTMs yet to come. EPA suggested the possibility of

selected review or a prioritized review process, but Pratt & Whitney stated their belief that all units need to be considered equally.

Pratt & Whitney questioned the detail required for the review process, particularly the need for EPA to review analytical data results. EPA stated that there was a criticality in the trace amounts of compounds, due to the use of the groundwater monitoring as a "safety net" on the release detection process. Investigation reviews simply take time, because there is so much information to not only read, but understand and evaluate. EPA pointed out that the lack of summary maps was slowing down the process, because of the digging for both compound detection and remediation standard exceedence values. Pratt and Whitney will provide the maps as soon as drafted. A discussion of document shipping times ensued, with EPA emphasizing that completing documents and shipping on Monday would result in a late morning Tuesday delivery, giving EPA only Tuesday afternoon and Wednesday for review. EPA also stated that a single point of contact between EPA and Pratt & Whitney should be maintained for efficient transfer of documents, with telephone confirmation of shipping dates for reliable tracking. The contacts are: Juan Perez, EPA; Vanessa Riva, P&W; and Tom Salimero, LEA.

The schedule proposed at the end of the discussion included the next meeting to be June 4, 1998 focusing on USTMs with a presentation of TMs not yet submitted and unlikely to be reviewed prior to the meeting. June 18, 1998 was proposed for the following meeting, in which the TMs would be fully discussed. June 25, July 9 and July 16 were also proposed for meetings.

2) Technical Memoranda 1, 2 and 3 were discussed. A general overview of well installation history was given by Pratt & Whitney, and the following investigation events were described:

- 1990 Westinghouse effort - preliminary reconnaissance of whole facility
- 1992 Haley & Aldrich - site wide evaluation
- 1993 Metcalf & Eddy - Klondike investigation
- 1996 LEA - unit specific evaluations, using 2-inch diameter wells
- 1997 LEA - unit specific follow up, using ½-inch diameter wells

  It was pointed out by Pratt & Whitney that a lapse in the monitoring record exists between 1993 and 1996.

General geologic information was provided by Pratt & Whitney for background. Typical conditions at the facility include a depth to groundwater ranging between 1 and 10 feet, a saturated thickness of between 10 and 16 feet, and clay which varies between 60 and 280 feet, thickest at the west end of the facility, thinnest at the northeast corner. The clay is thought to consist mainly of illites, but Pratt & Whitney has not yet located an analysis. There are bedrock outcrops about 2 miles east of Klondike. Groundwater flows generally from east to west, at a gradient of about 0.007 for Klondike and 0.003 for Airport. Pratt & Whitney believes that the surface water control, including the use of long culverts under the Airport, is the cause of the flatter gradient under the Airport.

EPA requested plume maps for the Virgin Products Storage Area groundwater contamination, showing the horizontal and vertical extent of contamination, to aid the evaluation of the groundwater characterization effort completed to date. EPA asked that these plume maps be done for each monitoring event, with zones of equal concentration being mapped. The goal is to demonstrate graphically that the plume is stable and not spreading. EPA pointed out that the driving concern of the groundwater investigation may be potential exposure at the residences south of the plume location. EPA also discussed that Pratt & Whitney should be addressing concerns regarding the threat of DNAPL formation, and movement beneath the surface water channel to the west of the plume or along the underlying clay contact. EPA encouraged Pratt & Whitney to discuss likely remedies early in the evaluation process, because investigation and characterization could be tailored to potential remedies, saving time and effort later. EPA described the concern about a lack of "protective fences" of monitoring wells around the North Klondike and the South Airport units. Additional demonstration of the unit characterizations may be required to build the confidence in the environmental protection for those units.